

REMARKS

Applicants have reviewed the publication and the specification and noted some errors that are attributable to the applicants and are corrected above. The applicants have also noted several errors in the publication that appear to be printing error. Applicants have listed these below for the convenience of the Examiner to ensure that the final patent is published properly. Several of the errors are the result of a missing underscore under a capital S. For example, at the end of the abstract S" should read S". Paragraph 34, line 3, S" should read S". Paragraph 35, line 10, the first occurrence of S" should read S". Likewise, the first occurrence of S' should read S' in line 13. Paragraph 37, line 2, should read S' rather than S'. Paragraph 37, line 3, should read S' not S'. Paragraph 37, line 4, should read S" not S". Paragraph 43, line 4, should read S" not S". Paragraph 44, line 2, should read S" not S". Paragraph 44, line 4, should read long with an α next to it, not long and then a lower case a. Paragraph 44, line 6, S'" should read S" and S" should read S". Paragraph 48, line 3, should read S" not S". Paragraph 49, line 2, should read S" not S". Because the above-noted errors were due to printing and thus they appear in the original application as filed, no official amendment has been submitted for these errors.

Should the Examiner have any further questions or comments please contact the undersigned attorney.

Respectfully submitted,

Date: Dec. 12, 2002

Vijayalakshmi D. Duraiswamy

Vijayalakshmi D. Duraiswamy

Reg. No: 31,505

Attorney for Applicants

Hughes Electronics Corporation
MS/A109
P.O. Box 956
El Segundo, CA 90245-0956
Telephone: (310) 662-9919

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Paragraph 13:

--[0013] Therefore, a mobile satellite payload having a minimal number of components, which can convert analog signals in frequency bands up to C-band to digital signals, is possible due to the stated method advantages. The present invention itself, together with further objects and attendant advantages, will be best understood by reference to the following detailed description, taken in conjunction with the accompanying drawings.--

Paragraph 29:

--[0029] Referring now to Figure 2A, a typical mobile satellite payload system[s] including a plurality of downconverters 30 and a plurality of filters 31 between the LNAs 28 and typical A/D converters 32 **is shown**--

Paragraph 30:

--[0030] The receive radiating elements 24 receive communication signals 26, which are detected at the element level to create received signals [S(t)], from a user at a given direction. The received signals [S(t)] have generally equal amplitudes, but different phases at each receive radiating element 24. Each received signal [S(t)] may be decomposed to two components: the carrier signal and the information signal, which modulates the carrier. A typical satellite communication signal may have a carrier signal frequency (f_c) equal to approximately 2GHz. The corresponding information signal frequency may have a bandwidth at approximately 10-20KHz or less.

Paragraph 50:

[0050] The above-described invention, by eliminating the downconverter reduces the number of mobile satellite payload components. The reduction of the number of mobile satellite payload components may reduce weight, costs, and hardware of the mobile satellite payload. The present invention also provides a method for digitizing signals at frequency bands up to C-band [**with out**] **without** using a separate downconverter.